

IN THE SPECIFICATION:

Please replace paragraph [0016] with the following amended paragraph:

[0016] In yet another embodiment, a memory of a node in a cluster is provided, the memory containing at least a data structure. The data structure [[comprising]] comprises a list defining membership to a group~~[[:]]~~, wherein the list is replicated to each job having membership to the group and wherein each list is accessed upon each request from a requesting member job to join the group, wherein the request is granted if the requesting member job is indicated in each list of the other jobs of the group.

Please replace paragraph [0026] with the following amended paragraph:

[0026] Generally, embodiments of the invention relate to systems and methods for creating and managing membership of a group within a cluster. A cluster is defined as a group of systems or nodes that work together as a single system. Each system or node is assigned a member name, which is a cluster-assigned name. The member name can be a machine's network host name, for example. A set of interfaces is provided that allows a cluster and a group to be created and allows members to be added, removed or joined. Generally, the systems and methods include a domain group which is a persistent object containing a list of the intended membership. The domain group object is stored as a persistent object on each member within the group. In general, a member refers to a job, and a group is a set of nodes executing the same job having the same name. However, it is understood that membership may be at any level including at the job level, the processor level and/or the system level. Thus, for example, a member may be a job, and a group may be a set of jobs running on a set of nodes. Which level is being addressed will be clear from context, if not stated explicitly.

Please replace paragraph [0027] with the following amended paragraph:

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Any. Dkt. No. ROC920010041US1
MPS Ref. No.: IBMK10041

[0027] In one embodiment, a mechanism is provided for joining a group in a distributed computing environment. A job requests to join a group, which includes the same job executing on another node(s), and that job is added to the group. In a further example, a job is removed from the group of [[job]] jobs when the job requests to leave or when the node on which the job is running is removed from the cluster.

Please replace paragraph [0038] with the following amended paragraph:

[0038] Figure 2 shows a cluster 200 comprising three nodes 106, Node A, Node B, and Node C, which were initially described with reference to Figure 1. The nodes each show at least one job executing thereon. Illustratively, Node A is executing Job 1, Job 2 and Job 4, Node B is executing Job 1, Job 3 and Job 4, and Node C is executing Job 1 and Job 4. Each job may be a member of a group. In one embodiment, a group is related according to the common jobs executing on respective nodes. For example, Job 1 on Node A and Job 1 on Node B are members of a first group 202. The instances of Job 1 on their respective nodes are differentiated by virtue of the respective node's name, which is unique within the cluster 200. Illustratively, a second group 204, a third group 206 and a fourth group 208 are also shown. For each group, the intended group membership is defined by a domain 210A-D (also referred to herein as domain group object). The domains 210A-D are collectively referred to herein as domains 210. In one embodiment, the domains 210 are implemented as persistent objects. A job is considered to have membership of a group when it is configured with a domain 210 indicating membership of the group. Illustratively, the instances of Job 1 on Nodes A and B are configured with a domain group object 210A indicating membership to the first group 202. Job 1 running on Node C also has membership to the first group 202 as indicated by the associated domain group object 210A of Node C. However, Job 1 on Node C is not currently an active member. This may be, for example, because the Job 1 on Node C failed and has since been restarted, but Job 1 running on Node C has not yet rejoined the first group 202.

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PAGE 4/11 * RCVD AT 2/7/2005 6:33:42 PM (Eastern Standard Time) * SVR:USPTO-EFXRF-1/2 * DNS:8729306 * CSID:7136234846 * DURATION (mm-ss):03-54

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